

REMARKS/ARGUMENTS

The teachings of Korpman do not anticipate the invention embodied in Claims 10-11. In order to qualify as an anticipating reference, Korpman must disclose each element of the claimed invention. The invention embodied in Claims 10-11 requires the presence of a thermoplastic resin selected from polyacrylic acid, ethylene and acrylic acid copolymer, ethylene, t-butylacrylate and acrylic acid terpolymer, ethylene and methacrylic acid copolymer, ionomers of ethylene and methacrylic acid copolymers, ethylene, vinyl acetate and carbon monoxide terpolymer, ethylene and carbon monoxide copolymer, ethylene, acrylic acid and carbon monoxide terpolymers, ethylene, n-butyl acrylate and carbon monoxide terpolymer or blends thereof. Korpman does not disclose, teach or suggest, either expressly or by implication, any of the polymers required in pending Claims 10 and 11. In the absence of any disclosure of the required thermoplastic resin, Korpman cannot anticipate the invention embodied in Claims 10 and 11.

The teachings of Korpman also do not render obvious the invention embodied in Claims 10-11. As noted above, Korpman does not disclose, either expressly or by implication, any of the required thermoplastic resins. In fact, Korpman expressly requires an elastomer or elastomeric resin in the abstract, the claims and in the specification (*see e.g.* column 8, lines 15-20). The sole disclosure of a thermoplastic resin in all of Korpman may be found in column 14, lines 11-16, where Korpman refers to the possibility that a backing sheet to be used in conjunction with a required elastomeric sheet might be made of a conventional fluid impermeable material such as polyethylene. Even then, Korpman prefers a thermoplastic-elastomeric polymer film as a backing sheet. Applicant respectfully submits that nothing in Korpman guides a skilled artisan to overcome the clear difference between Korpman and the claimed invention embodied in Claims 10-11. Applicant also submits that even selective hindsight fails to motivate a skilled artisan to try, much less use, a thermoplastic resin in place of an elastomeric resin as a non-swelling matrix polymer.

Korpman clearly acknowledges that a “thermoplastic elastomer” is a subset of an “elastomer” at column 8, lines 15-17. Korpman’s acknowledgement is consistent with standard references. The Condensed Chemical Dictionary, Twelfth Edition (1993), defines “elastomer” as follows:

As originally defined by Fisher (1940), this term referred to synthetic thermosetting high polymers having properties similar to those of vulcanized natural rubber, namely, the ability to be stretched to at least twice their original length and to retract very rapidly to approximately their original length when released. Among the better known elastomers introduced since the 1930s are styrene-butadiene copolymer, polychloroprene (neoprene), nitrile rubber, butyl rubber, polysulfide rubber (“Thiokol”), cis-1,4-polyisoprene, ethylene-propylene terpolymers (EPDM rubber), silicon rubber and polyurethane rubber. These can be cross-linked with sulfur, peroxides, or similar agents. The term was later extended to include uncrosslinked polyolefins that are thermoplastic; these are generally known as TPO rubbers. Their extension and retraction properties are notably different from those of thermosetting elastomers, but they are well adapted to such specific uses as wire and cable coating, automobile bumpers, vibration dampers, and specialized mechanical products.

The same reference defines “thermoplastic” as follows:

A high polymer that softens when exposed to heat and returns to its original condition when cooled to room temperature. Natural substances that exhibit this behavior are crude rubber and a number of waxes; however, the term is usually applied to synthetics such as polyvinyl chloride, nylons, fluorocarbons, linear polyethylene, polyurethane prepolymer, polystyrene, polypropylene, and cellulosic and acrylic resins.

The same reference also includes a definition for “polymer and a partial list of polymer such as:

2. Synthetic (a) thermoplastic elastomers (unvulcanized), nylon, polyvinyl chloride, polyethylene (linear), polystyrene, polypropylene, fluorocarbon resins, polyurethane, acrylate resins.

According to the same reference, a “block copolymer” is a:

Polymer containing long stretches of two or more monomeric units linked together by chemical valences in one single chain.

Grant & Hackh's Chemical Dictionary, Fifth Edition (1987) defines an "elastomer" as follows:

Contraction of "elastic polymer". A generic term (Fisher) for all substances having the properties of natural, reclaimed, vulcanized, or synthetic rubber, in that they stretch under tension, have a high tensile strength, retract rapidly, and recover their original dimensions fully.

Grant & Hackh define "thermoplastic" as: "Rendered soft and moldable by heat." They refer the reader to "plastics" which they define, in part, as follows:

A group of organic materials which, though stable in use at ordinary temperatures, are plastic at some stage of manufacture and then can be shaped by application of heat, pressure, or both. Synthetic rubber and certain inorganic materials, e.g., glass, comply with this definition but are not usually regarded as plastics. Cf. *elastomer, polymer*.

At page 462, Grant & Hackh provide a lengthy definition for "polymer". Part of the definition refers to "block" polymers as "a polymer built of linearly linked polymeric units".

Applicant offers the above definitions to show that skilled artisans recognize, and have done so for many years, that plastic or thermoplastic polymers differ substantially from elastomers in general and a sub-class of thermoplastic elastomers in particular. Applicant respectfully submits that a skilled artisan would not find it even obvious to try, much less obvious, to substituting a thermoplastic polymer for an elastomer. Nonetheless, it appears that the Office suggests just the opposite.

Applicant contends that, contrary to the Office's apparent assumption, Korpman (US Patent 4,318,408) requires an elastomeric polymer matrix and does not teach or suggest any other matrix polymer in general or the specified thermoplastic polymers listed in Claim 1 in particular. Block copolymers, as noted above, contain linked polymeric units. Block copolymers such as ethylene-propylene-diene monomer or EPDM interpolymers and styrene-butadiene copolymers are elastomeric polymers and are viewed as polymers rather than as distinct monomer units. In other words,

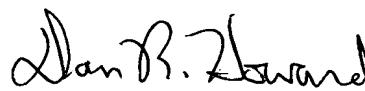
one cannot segregate the thermoplastic "A" blocks from the rubbery "B" blocks discussed by Korpman at column 8, and focus only on the thermoplastic blocks. Korpman requires both thermoplastic blocks and rubbery blocks in a single polymer. The elastomeric polymers mandated by Korpman are not blends of thermoplastic polymers and rubbery polymers. In the absence of any teaching or suggestion to eliminate the mandatory elastomeric polymer, a skilled artisan has no guidance to even try to find a substitute polymer in general or one of the claimed thermoplastic polymers in particular.

Applicant respectfully contends that nothing in Korpman supports a rejection under either 35 USC 102(b) or 35 USC 103(a). As such, Applicant offers no amendments to the claims.

Applicant thanks the Office for indicating that Claims 34-35 contain allowable subject matter. Applicant defers any amendments to Claims 34-35 at this time based upon the contention that the rejected base claims also contain allowable subject matter.

Applicant respectfully requests withdrawal of all rejections and objections and allowance of Claims 1-6, 8-11, and 32-40 at an early date. As the response contains no claim amendments and has a mailing date well within the shortened statutory period, the response generates no fee payment requirements.

Respectfully submitted,



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